GE current LUR Series Lumination LED Luminaires Installation Guide

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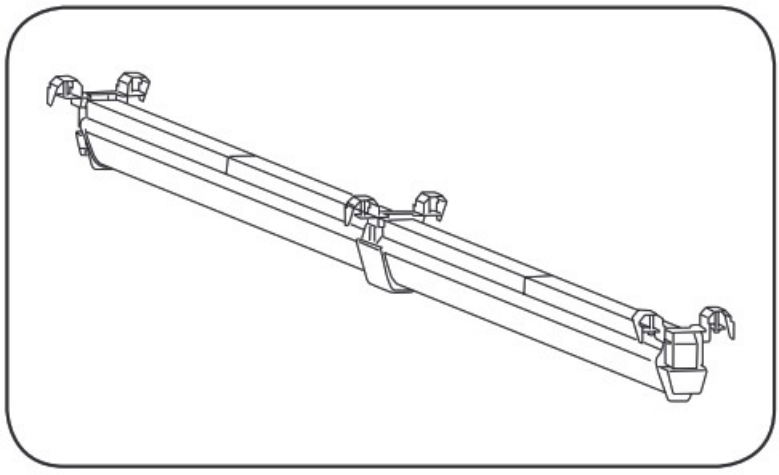
Installation Guide
IND509 A-1024745

Lumination® LED Luminaires
LUR Series 2nd Generation installation and troubleshooting guide

STOP **BEFORE YOU BEGIN**

Read these instructions completely and carefully.



Contents

LUR Series Lumination LED Luminaires

 **WARNING**
RISK OF FIRE OR ELECTRIC SHOCK

- Turn power off before inspection, installation or removal.
- Properly ground electrical enclosure.
- Follow all NEC and local codes.
- Only those open holes indicated in the photographs and/or drawings may be made or altered as a result of kit installation. Do not leave any other open holes in an enclosure of wiring or electrical components.
- LUR LED retrofit kit installation requires knowledge of luminaires electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician.
- To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
- Install this kit only in the luminaires that have the construction features and dimensions shown in the photographs and/or drawings and where the input rating of the retrofit kit does not exceed the input rating of the luminaire.
- Use only UL approved wire for input/output connections. Minimum size 18 AWG or 14 AWG for continuous runs.
- When using multi-branch wire circuits with a shared neutral, do not operate any circuit with the neutral open. Also ensure all neutral connections are secure before energizing the circuit. An open neutral can cause an overvoltage condition at the luminaire power supply.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. CAN ICES-005 (A) / NMB-005 (A).
NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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https://www.youtube.com/watch?v=xHr9rmY8918

Important Notes for Installation

IMPORTANT – Maximum Length of Electrical Run
Ensure that maximum safe working load of the fixture's suspension brackets is not exceeded after LUR retrofit kit is added.

Prepare Electrical Wiring


Electrical Requirements
The LED fixture must be supplied with 120-277VAC, 50/60Hz and protected by a max. 20A circuit breaker. Use min. 75°C supply conductor.


Grounding Instructions
The grounding and bonding of the overall system shall be done in accordance with National Electric Code (NEC) Article 600 and local codes.

IMPORTANT – During Installation

1. When installing, use clean gloves in order to avoid fouling the lens and photoband.
2. All provided screws must be screwed in and tightened to ensure that the retrofit kit is safely attached to existing luminaire. Max torque: 33 lbf-in.
3. Minimum distance from ceiling to luminaire: 3 in.
4. a) Maximum length of electrical run: 120V: 176 ft. / 277V: 412 ft. b) During Install, please add voltage drop per 8 ft. (0.01V/8 ft.)
5. It is recommended to use the optional tether kit (93064841) to ensure extra mechanical security on final install.
6. a) Ensure to cover and disconnect any unused dimming circuit to avoid accidental connections between themselves(see Wiring Diagram on last page).
7. For any additional AC circuit in the existing power drop not being used, please perform the following:

• Disconnect the Circuit not being used. Strongly recommended to do this at the nearing junction box level.

• Note the breaker ID corresponding to the unused electrical circuits.

• Close the breaker not in used with a Breaker Lock along with a label stating the following:

o “Circuit Disabled per LED Lighting Project 2019

8. Ensure Master and Satellite sequence is respected to avoid fixture overloading.

   • In the event that 2 masters were placed back to back after finishing a site, please reach out to correct contact to order a 4FT SKU, which can be used to replace the mis-placed MASTER fixture. This step is crucial as this will impact the Lumen Maintenance of the fixture

9. By using this retrofit kit, you are not required to remove the existing ballast and can be kept inside the fixture. Please note that the AC electrical circuit feeding the ballast is disabled (See Note 7 above)

Save These Instructions

These instructions do not purport to cover all details or variations in components nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problem arise which are not covered sufficiently for the purchaser’s purpose, the matter should be referred to General Electric Company. GE does not claim liability for any installation not performed according to this guide or not by a qualified electrician.

Required Tools

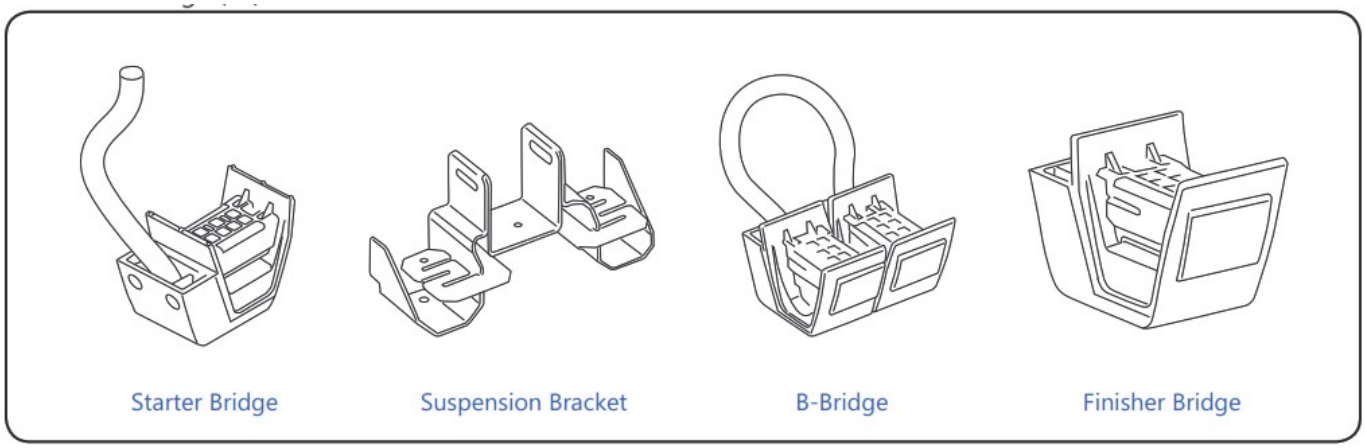
- Portable drill with 1/4″ hex drive bit
- Screwdriver
- Knock-out Punch Set (see instructions at page 5)
- 1/4″ Socket Nut
- Splice Connector (UL Listed, Max 20A & 14AWG)

Kit Components

LUR Starter KIt

A starter kit is required for each existing power drop. The starter kit contains:

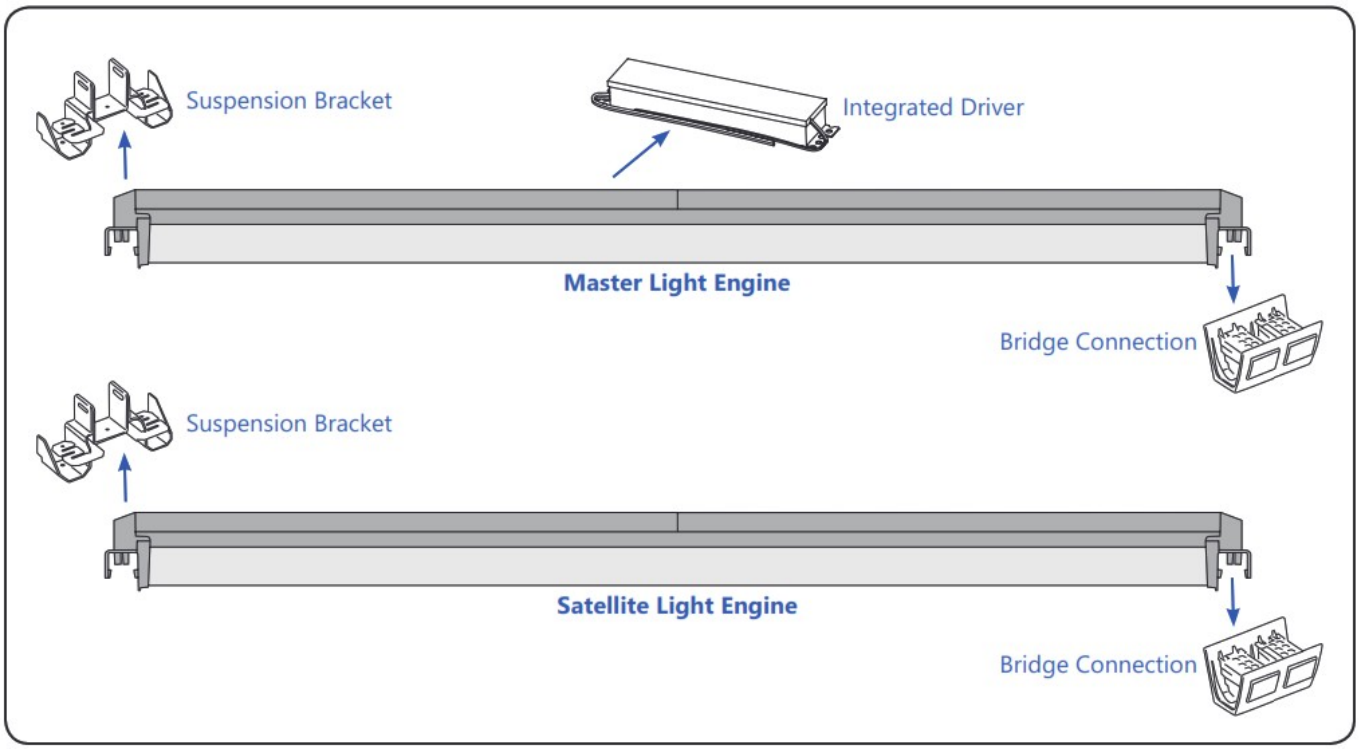
- Starter Bridge (x1)
- Suspension Bracket (x2)
- B-Bridge (x1)
- Finisher Bridge (x1)



NOTE: If more Starter Bridges are needed and there is a leftover of B-Bridges, you may cut the B-Bridge in half to

make 2 Starter Bridges

Regular LUR KIt
LUR Gen 2 Retrofit kit comes in an 8 ft. configuration. The kit contains two 4 ft. light engines: the master and the satellite. The master LE has an integrated driver.
Each 4 ft. unit comes with to a bridge and a suspension bracket, pre-attached.



Power Drop

Before initializing a row of continuous run, locate the existing power drop.

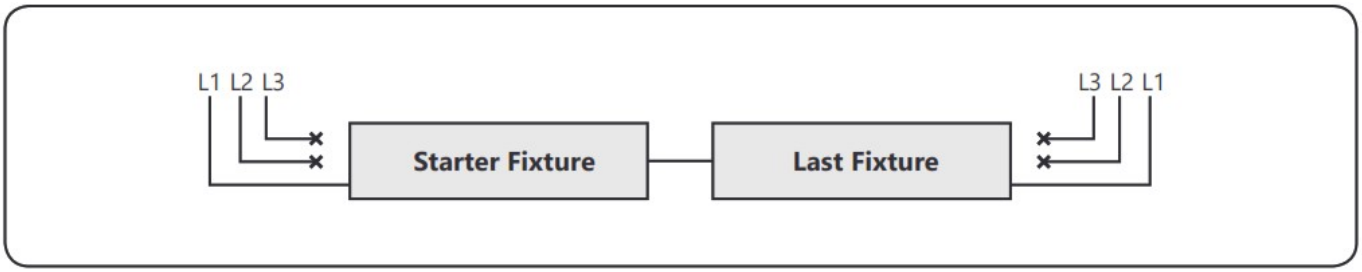
Installation of a Retrofit Kit

NOTE: Fixture shown below is an example; please follow steps as needed according to the fixture being retrofitted.

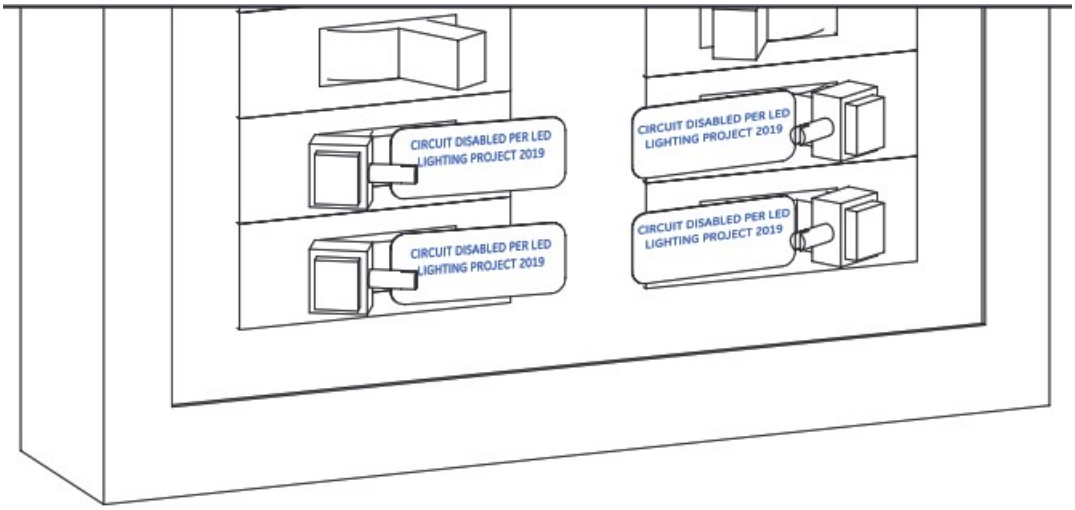
1. Remove the fluorescent tubes.
2. Open fixture (remove belly pan) and disconnect the AC electrical circuit from the main drop.

Important
For the Starter Fixture, disconnect all AC electrical circuits that will not be used/connected to the starter bridge. It is strongly recommended to disconnect the electrical circuit at the nearest junction box.

- If the electrical circuit is closed (i.e. it will not be connected to another row of lighting fixtures), the last fixture of the row will need a Finisher Bridge.
- If the electrical circuit is being carried over to another fixture row, the last fixture will need a Starter Bridge to feed the AC power to another row (See illustration below)



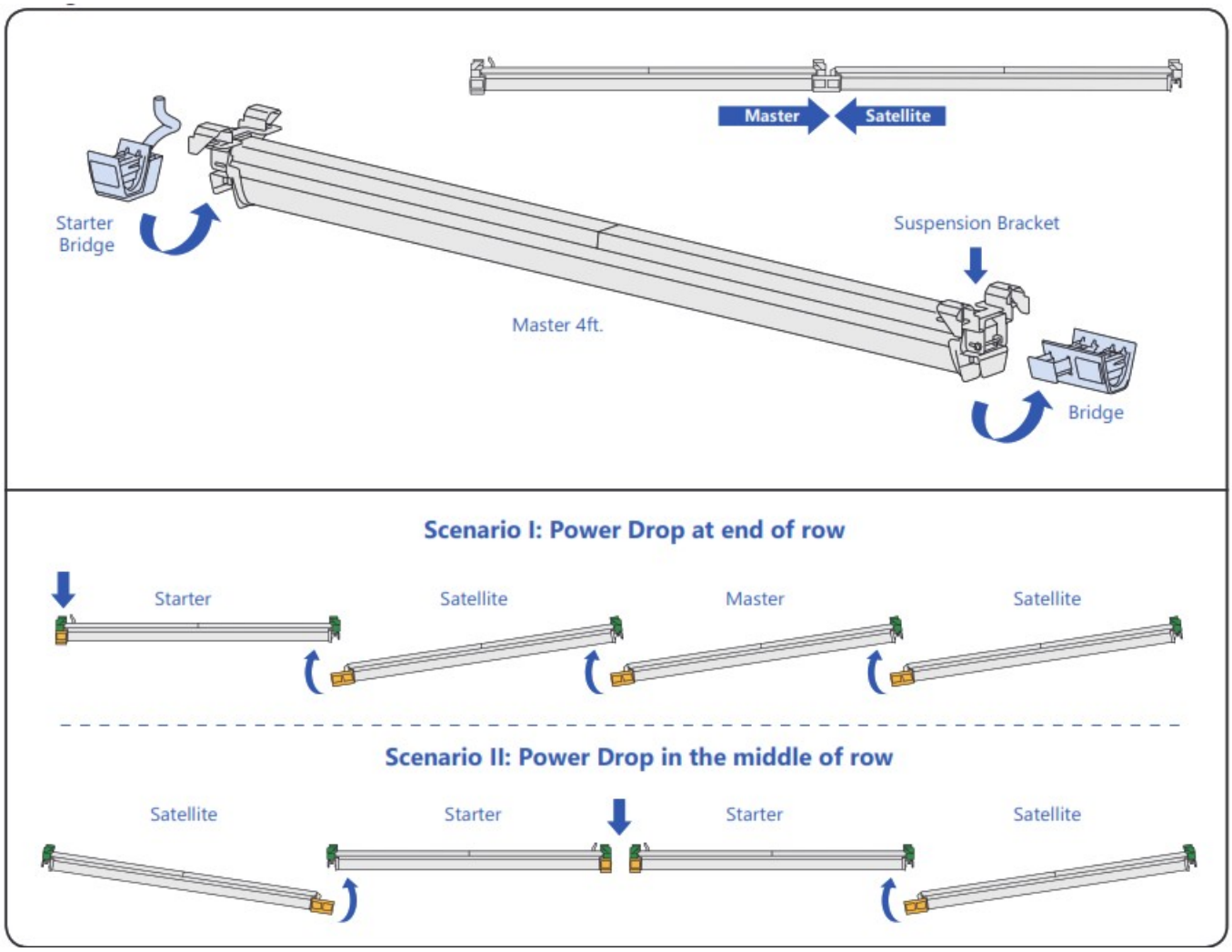
Note: L1/L2 and L3 represents AC electrical circuits. In certain applications, multiple electrical circuits will be present at the start of a lighting fixture row. During the retrofitting process, please ensure that all unused electrical circuits are properly disconnected per NEC code and that their respective breakers are turned off



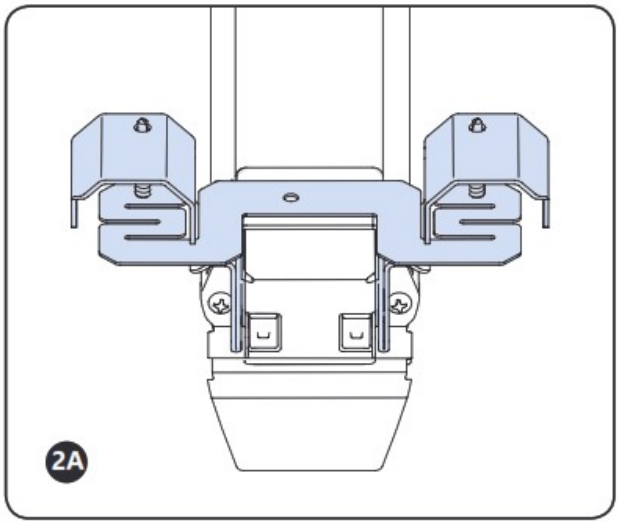
NOTE: For all unused disconnect lines, turn off their respective breaker, lock with a breaker lock and apply a label stating “Circuit Disabled per LED lighting project 2020”. This will help traceability in the future.

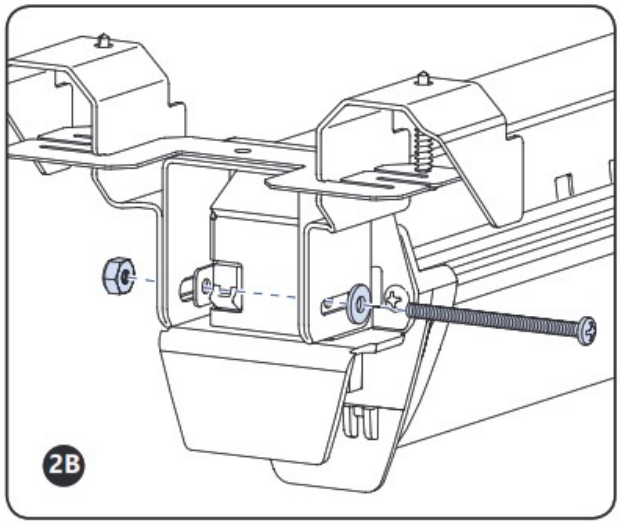
► Starter Fixture Installation

To begin installation LUR Gen 2 fixtures, a starter kit is needed . The kit will be used to convert a standard MASTER light



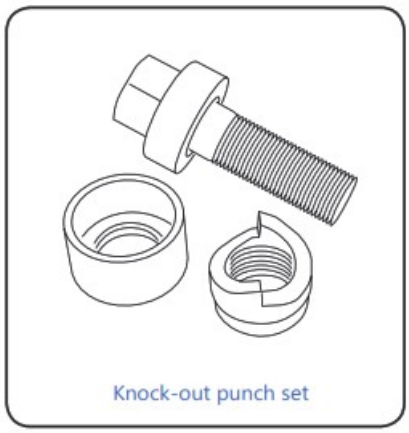
1. On the master 4 ft., remove the attached bridge connection. Pull out the lock using a flat head screwdriver, then slide the bridge off the end cap by moving the fixture away from the bridge connector.
   *In the scenario where the power drop is in the middle of a row, two starter fixtures will be required.





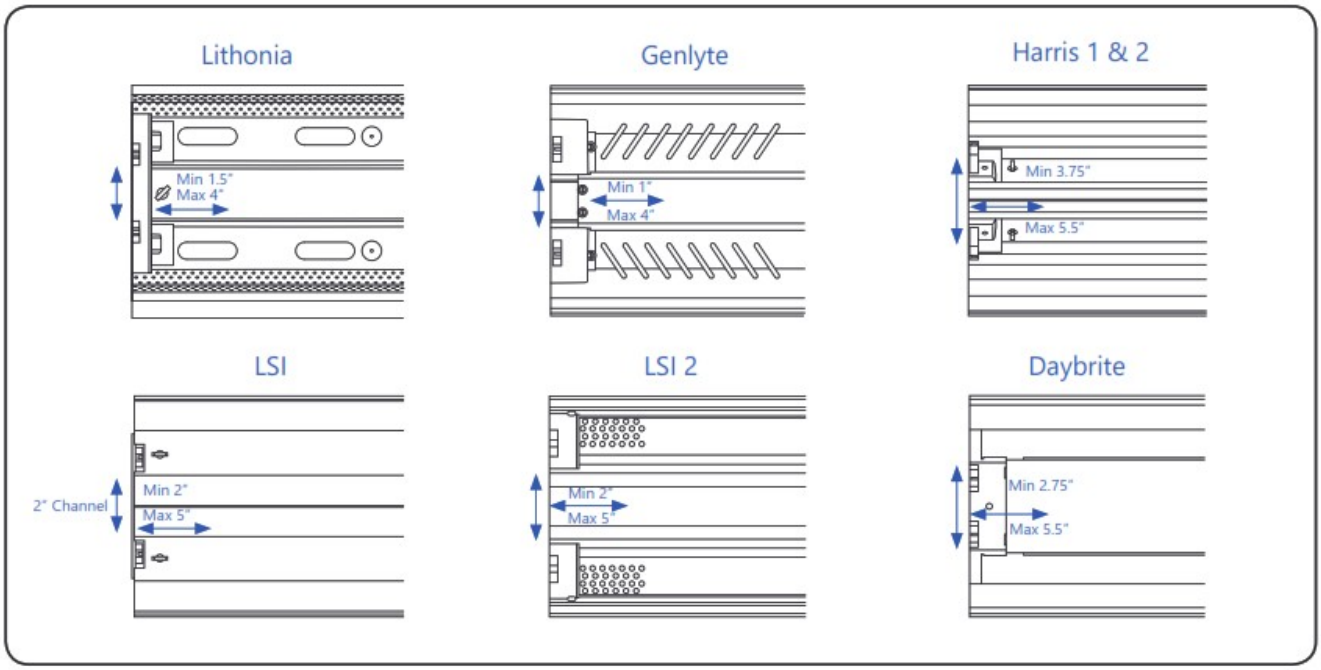
2. Install the suspension bracket on the master fixture on the side where the bridge connection was removed. Place the suspension bracket in the orientation shown in 2A, then align it with the holes of the PSU cover. Insert the screw and lock it using a washer and nut as shown in 2B.
   NOTE: The first fixture with the starter bridge will have 2 suspension brackets, while every additional 4 ft. will have 1 suspension bracket.
3. Use a knock-out punch set to make a 7/8″ punch hole in the cover plate reflector within the range indicated in the diagrams of step 3, based on the fixture being retrofitted.

If permitted, use up-light slot in lieu of punch hole to pass through starter harness



A To make a punch hole clean and accurate, use a multi-bit or a mesh to make the initial hole of 3/8″. When making the punch, ensure that all shavings are contained.

B Insert the die in the pilot of the appropriate dimension through the hole and the punch on the other side of the metal cover plate with the sharp part towards the metal plate. Rotate the punch until it is close to the metal plate and use a key, to rotate the pilot until a clean hole is made.

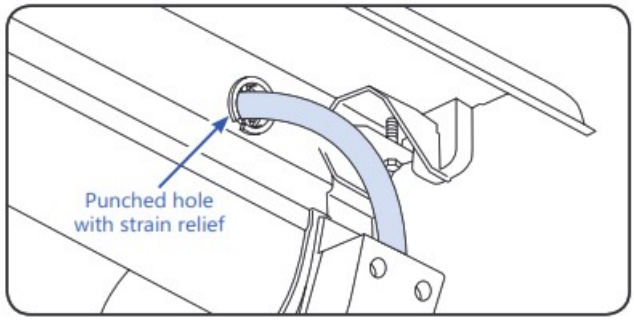


4. Install the strain relief into the punched hole and insert the wires of the starter harness through the hole and connect it to the main drop, while letting the starter bridge hang through the hole.

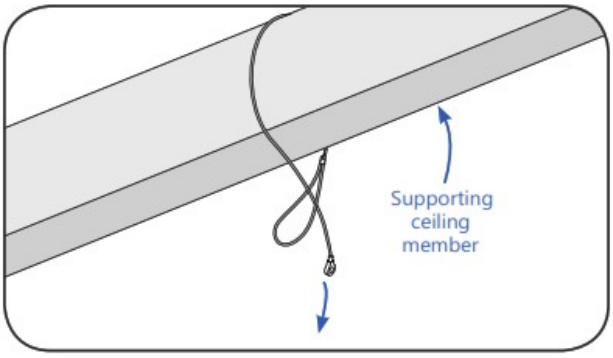
   ** For up-light retrofitted fixture (X-wing, Lithonia etc.), use the up-light slots to pass the power chord and access existing knockout on the enclosure

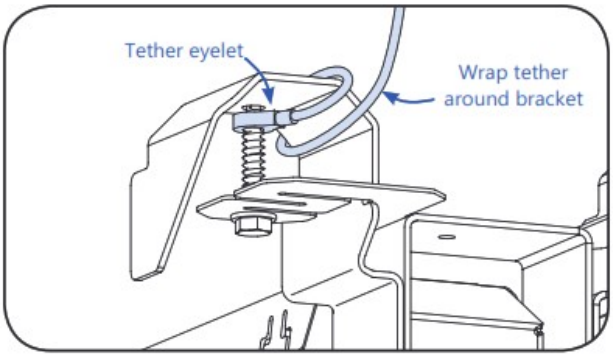
5. Rotate the light fixture and screw in the 2nd suspension bracket, connect the starter harness in the endcap as shown below and insert the bridge lock in the starter bridge.

   Follow the steps of the regular fixture install to complete the installation.



Installation of Safety Tethers





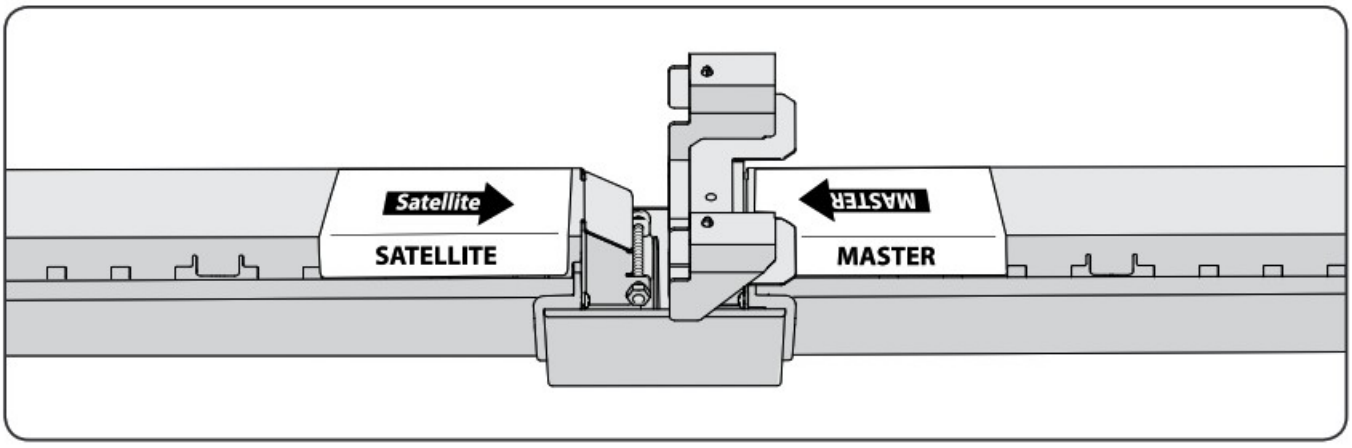
6. Wrap the tether over a supporting ceiling member, and slip its loop around the fixture's metal bracket. (Example shown; choose wrapping location wherever possible). The eyelet will be placed between the screw and the bracket (right). For every row of fixtures, 2 tethers must be installed per 8 ft. for the first and last fixtures in the row. For all other fixtures, one tether must be installed per 8 ft.

   Screw brackets into fixture.

   NOTE: Max torque is 33 lbf-in to avoid deforming bracket.

   NOTE: Do not remove spacers on the brackets' screws, as they are meant to stay on screws after installation.

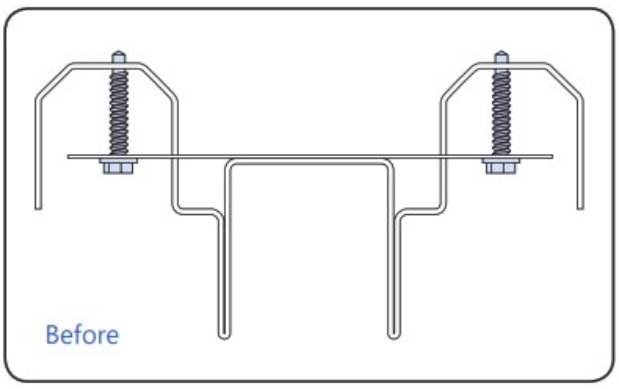
► Regular Fixture Installation

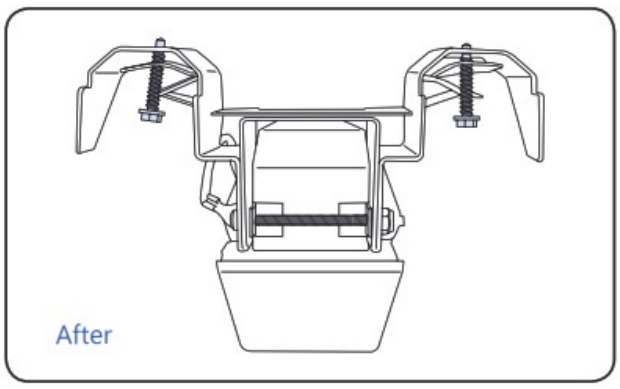


The regular LUR fixture comes in a configuration of two 4 ft. LE: the master and the satellite. Ensure that the label arrows are facing the same direction to have the correct wiring convention. The labels are located on both the top and side of the fixture.

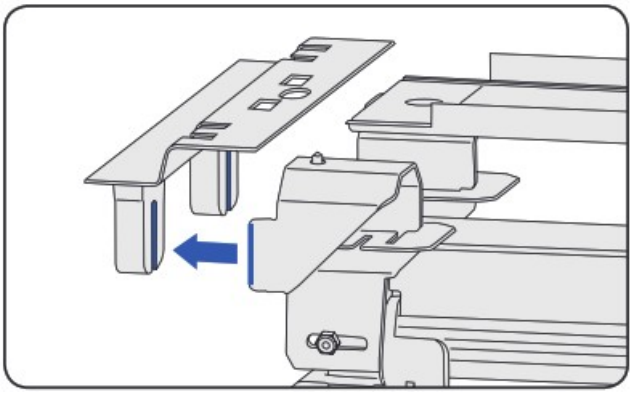
**If there is a bad sequence of Master-Satellite on a row after installation, replace the wrongly-positioned fixture by a 4FT SKU.

1.

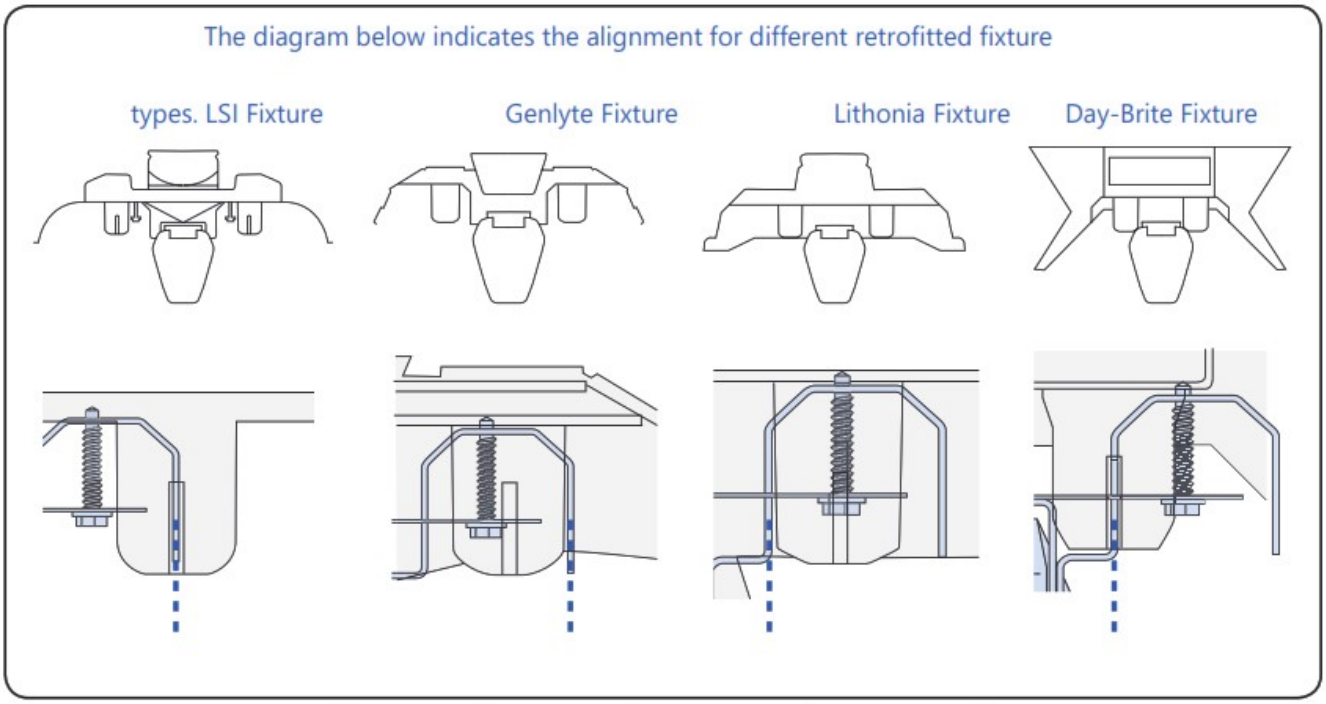


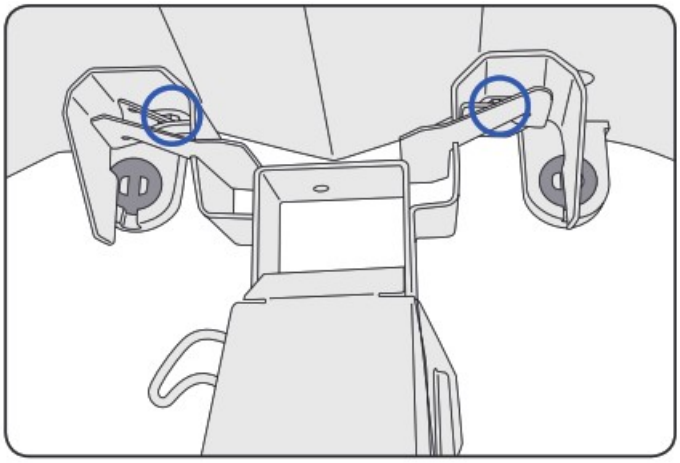


Ensure drilling screws are mounted properly engaging both components of the suspension bracket.



2. Hold the fixture vertically and align both edges of the suspension bracket with the center of the tombstones. The diagram on the left illustrates the desired alignment.

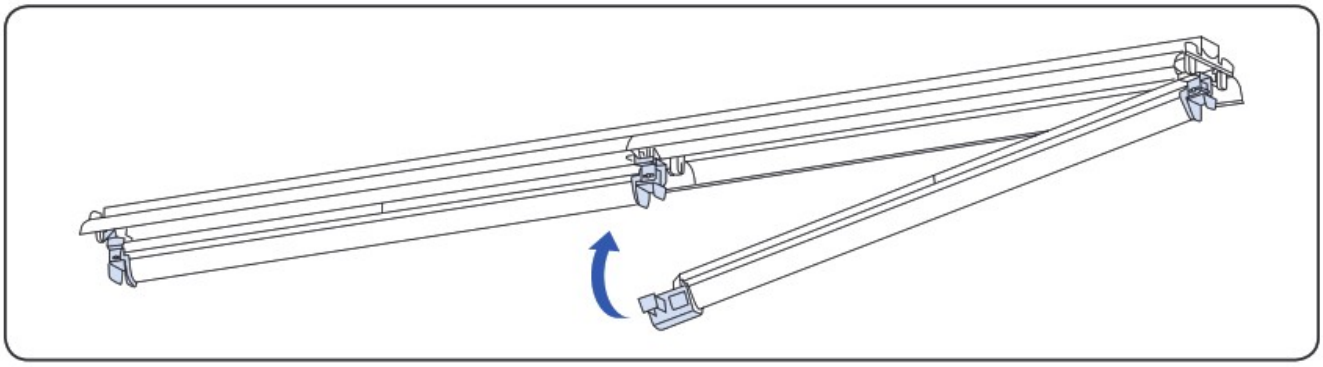




3. Drill the screws through the suspension bracket into the reflector.

   NOTE: The bottom tab will bend during the drilling process.

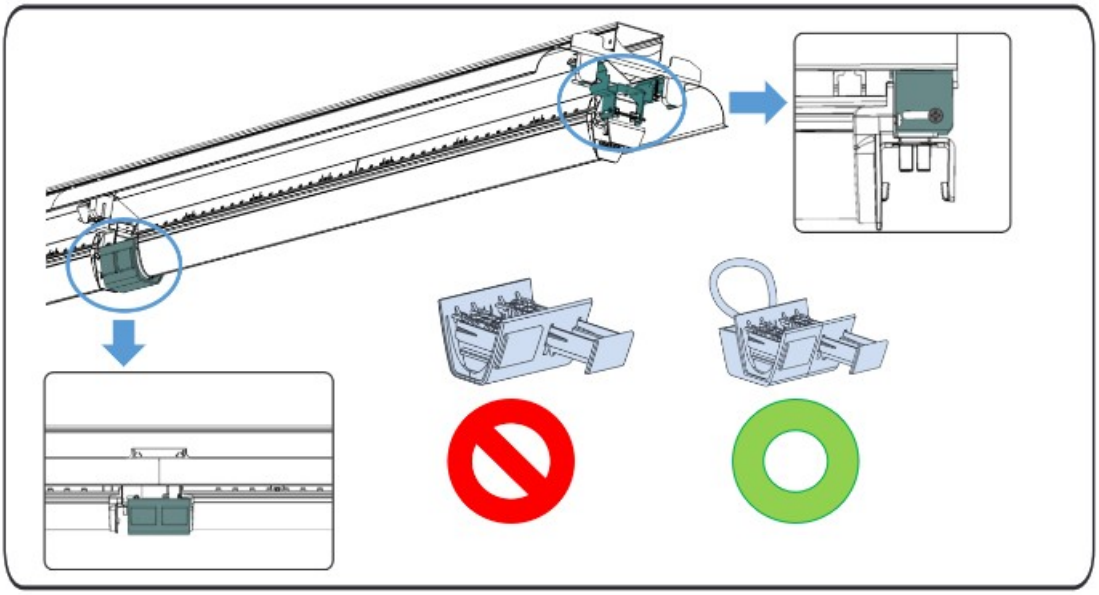
   NOTE: Repeat this step for each fixture end in the case of a starter fixture.

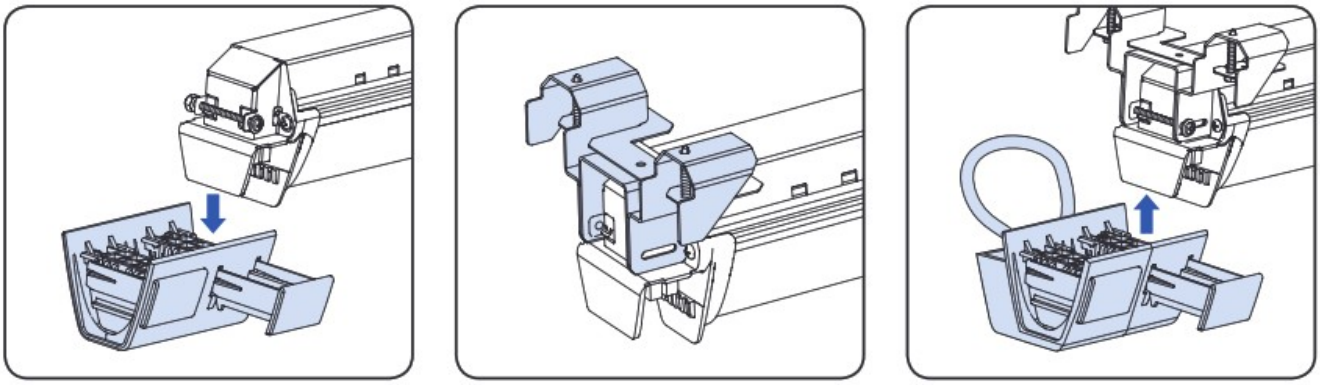


4. Open the bridge lock using a flat head screwdriver, as shown in the figure below. Rotate the fixture to a horizontal position and attach it to the adjacent fixture through the bridge. Lock both bridge locks to ensure the assembly stays in place.

   NOTE: LUR Luminaires are designed for smooth continuous run install. Should additional force be required to make connections between luminaires, ensure that mounting geometry is correct and if needed, refer to conditional step 5 or refer to troubleshooting guide on the last page.

5. Conditional Steps: Only follow this step in the case of a gap between adjacent fixtures. If the regular bridge does not fit even when the fixture is slid to the maximum extent (refer to figure below) use a B-Bridge instead to account for the extra gap.

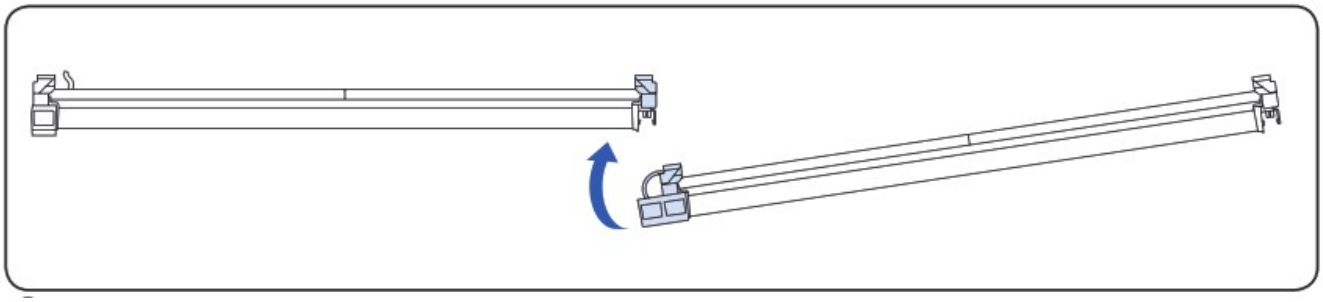




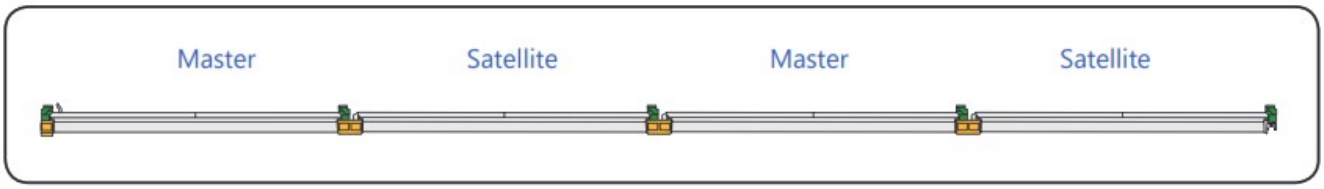
A Pull the lock. Remove the regular bridge by sliding it downwards. Install a suspension bracket.

B Install a suspension bracket instead of the bridge. There should be a suspension bracket on each side of the BBridge.

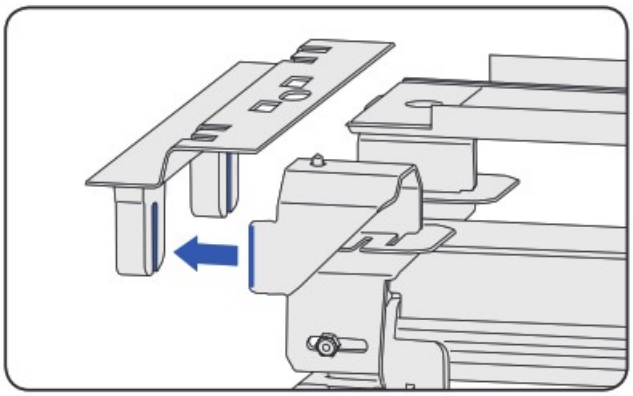
C Pull the lock. Remove the regular bridge by sliding it downwards. Install a suspension bracket.



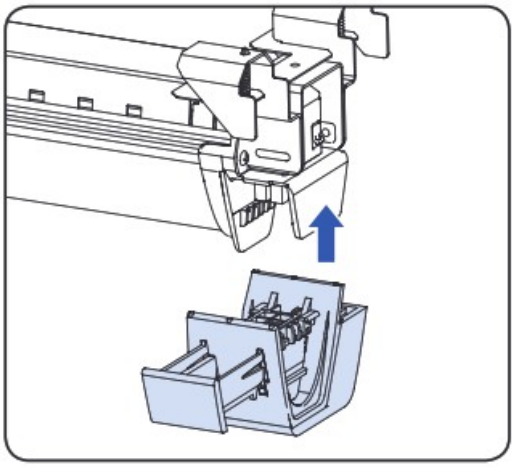
D Rotate the fixture to a horizontal position and attach it to the adjacent fixture through the bridge. Lock both bridge locks to ensure the assembly stays in place.



Note: The suspension bracket comes with a slot to allow adjustment in the field to accommodate variance in length. For best practices, start the fixture towards the middle as shown on the right. Upon installing the following fixture, if it cannot reach the bridge connector, slightly shift the fixture close by utilizing the space provided by the slot in the suspension bracket. If the suspension bracket is not reaching the tombstones, the fixture most be converted to a starter fixture and use a B-Bridge to continue installation.

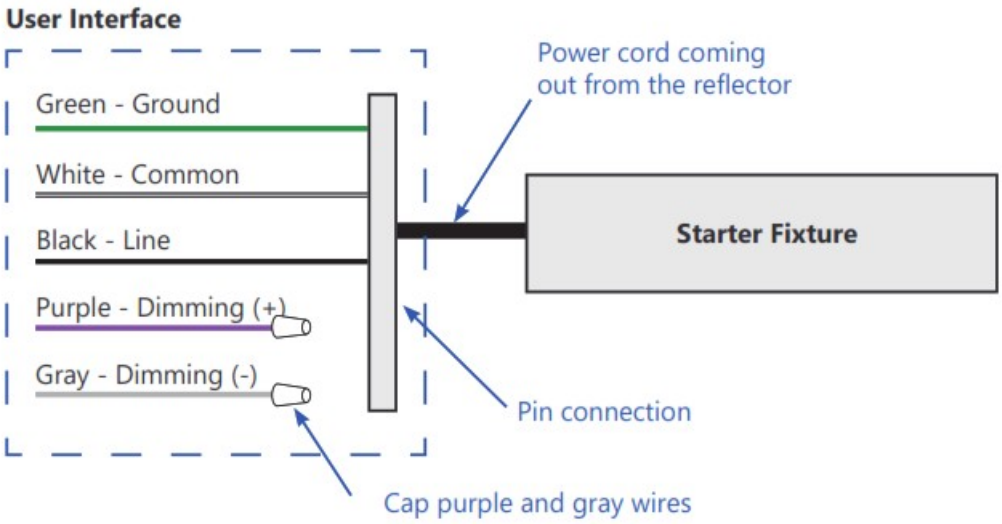


6. The last fixture in a continuous fixture requires a finisher bridge. Remove the bridge from the light engine and install the finisher bridge on the bracket side of the fixture. Insert the bridge lock, as shown in the figure below.



Wiring Diagram

Follow the wiring instruction below to connect the starter fixture to the power source. Wiring for the rest of the continuous line of fixtures is ensured by the bridge connections.



Troubleshooting

Luminaire will not turn on	• Check that the color of the supply side wires matches the color of the wires t hey are connected to. • Check that all wire connectors and bridges are properly connected. • Verify that the input voltage is within specs. • Verify that each 8 ft. section has one master and one satellite fixture. • Verify that label arrows are all pointing in the same direction..
Luminaire will not dim	• Check that all wire connectors and bridges are properly connected. • Verify that label arrows are all pointing in the same direction.
Luminaire cannot be connected	• If the gap between fixtures is too large, use the B-Bridge instead of the bridg e. • Ensure that mounting geometry is correct

Lumination® LED Luminaires
LUR2 Troubleshooting Checklist & Replacement Parts

BEFORE YOU BEGIN
Read these instructions completely and carefully.

WARNING

RISK OF ELECTRIC SHOCK

- Turn off power before inspection, installation or removal
- Properly ground electrical enclosure if ground is manipulated

RISK OF FIRE

- Follow all NEC and local codes
- LUR LED maintenance requires knowledge of luminaire electrical systems. If not qualified do not attempt troubleshooting or repair. Contact a qualified electrician.

Save These Instructions
Use only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer.
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. CAN ICES-005(A)/NMB-005(A)
NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
NOTICE: GE Current, a Daintree company disclaims any liability of injury or property damage resulting from the use of this troubleshooting guide.

Prepare Electrical Wiring


Electrical Requirements

- The LED luminaire must be connected to the mains supply according to its ratings on the product label.
- Class 1 wiring should be in accordance with NEC.


Grounding Instructions

- The grounding and bonding of the overall system shall be done in accordance to local electric code of the country where the luminaire is installed.

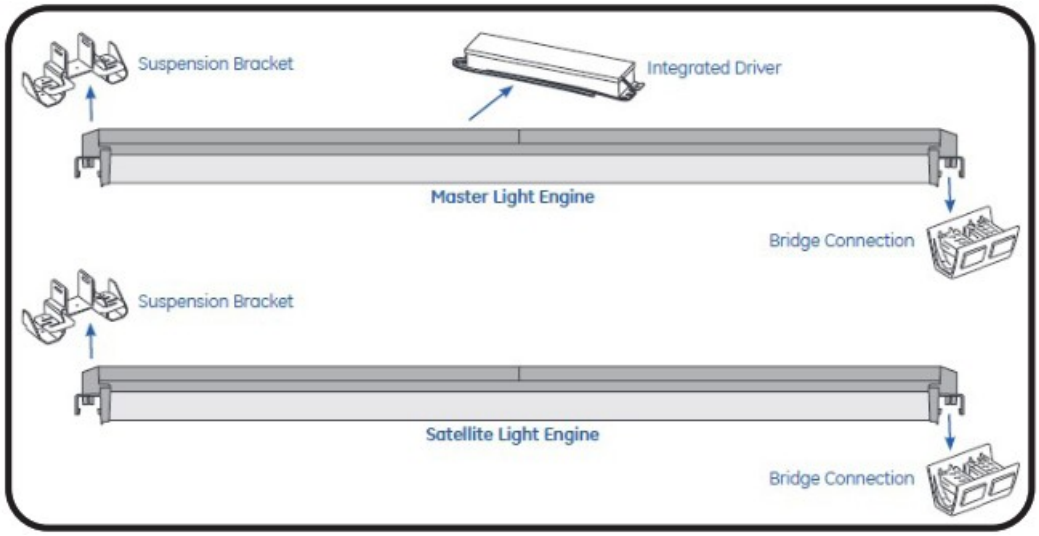
Click here for install instructions. Scan code for install video.

https://www.youtube.com/watch?v=xHr9rmY8918

LUR2 System

The LUR Gen 2 retrofit kit consists of an 8-foot configuration. The kit contains two 4ft. light engines: the master

and the satellite. The master light engine has an integral driver that powers itself and one satellite light engine. The LED light engines are connected by bridge connectors. Within the text, “section(s)” will be brought up, a section compromises of a light engine, bridge connection and suspension bracket.

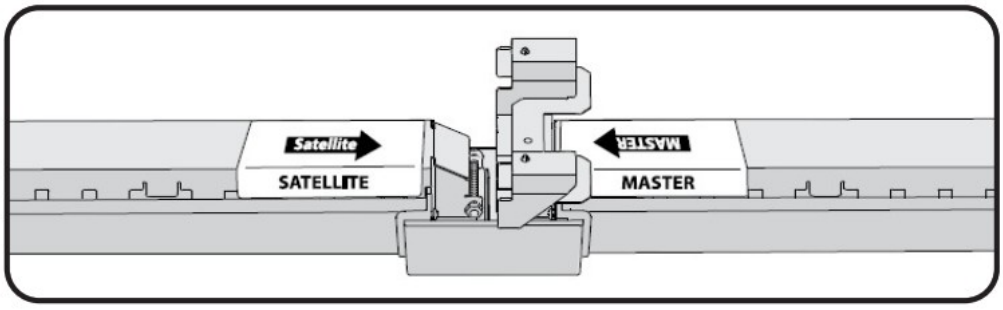


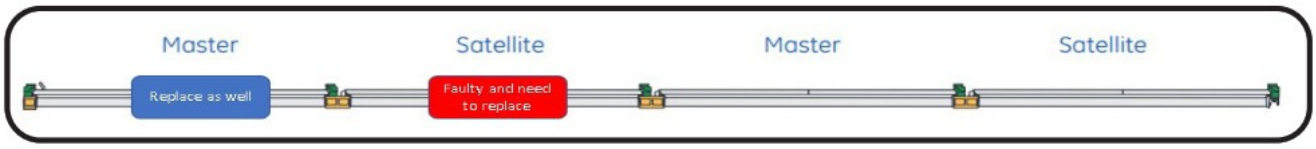
Installation

1. **Single 4-foot light engine is out**

   • Verify proper orientation of the master and satellite light engines. The labels should point to each other. As shown below. Please ensure that 2 satellites are not connected back to back, as the latter one will not be lit.

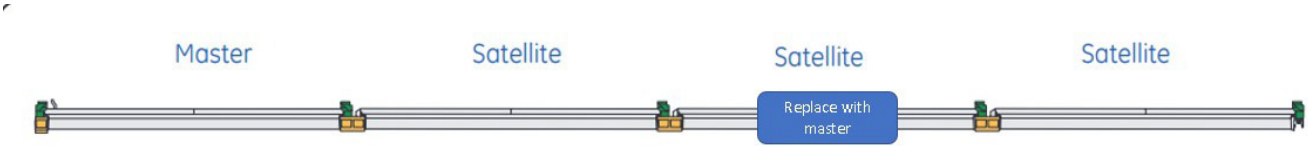
   • If it’s still not lighting up, replace the entire 8-foot section as shown below.





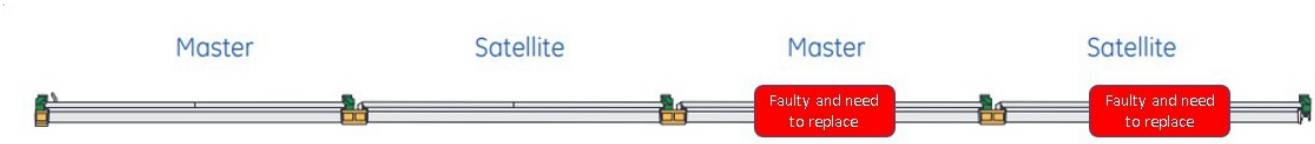
2. Single 8-foot section is out

   • Ensure that the master/satellite configuration is maintained. If there are 3 consecutive satellites in the row, that will result in an 8-foot section out.

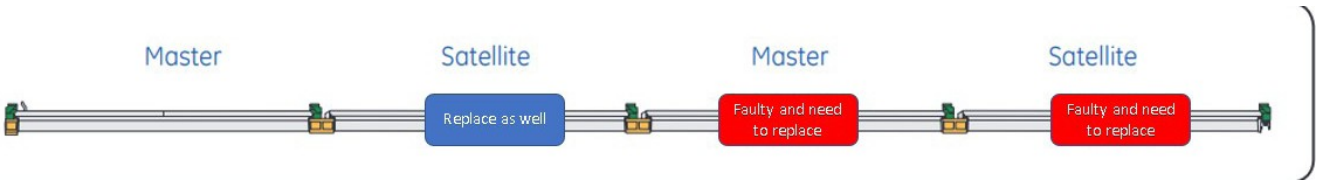


   • A single 8-foot master/satellite outage is usually caused by a failed driver in the master light engine. The driver is not replaceable.

   • If not located at the end of the row, replace entire 8-foot section as shown below.



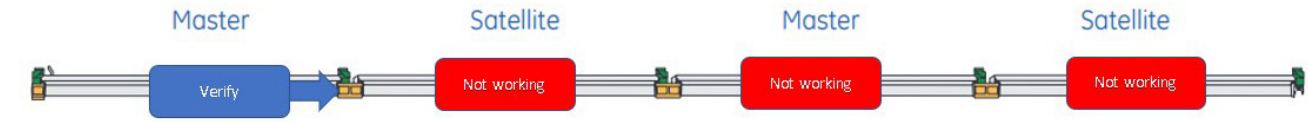
• If the 8-foot section is at the end of the row, then replace the 4-foot section prior to it as well as shown below.



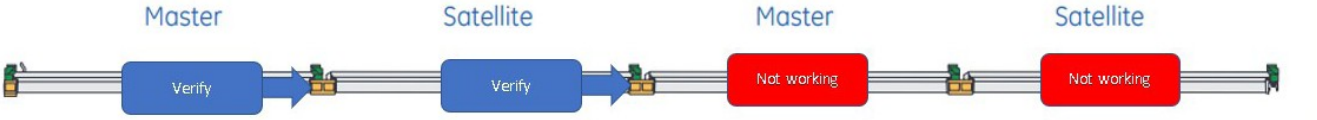
3. Multiple continuous light engines are out consecutively (more than 2 x 4-foot sections)

   • Continuous rows are powered by an internal wiring harness. Check the bridge connector where the outage begins.

   – If the 1st out fixture is a satellite, check the connection between the prior master and that satellite (replace verified sections as well).



   – If the 1st out fixture is a master, check the connection prior to the master and satellite (replace verified sections as well).



   • If a faulty connection is found in the bridge, replace as indicated above.

4. **Entire row outage**
5. Ensure that the breaker is not tripped. If it is, count the number of 8-foot sections on breaker/power drop. Ensure that it does not exceed 52 x 8-foot sections.
6. Check the power connection to the first master light engine in the row. Note that there will be multiple circuits coming in the existing fluorescent fixture, 1 circuit will be tied to the power cord of the LUR2 series and 2 circuits will be cut. (Visit Product Install sheet)
7. If full rows or large sections of store are out, check the breaker at the panel. If the breaker is not tripped the issue may be related to the control system installed. Please contact the Daintree Controls team at 866-855-8629 or email **CurrentSupport@gecurrent.com.**

Important Notes:

- Please mark the removed fixtures in pairs so when received they can be analyzed together.
- If a bridge connection will not easily back out while performing checks, then remove complete 8-foot with the bridge in question in the middle.

For immediate assistance please call:
• Tech support: 1-888-694-3533

www.gecurrent.com

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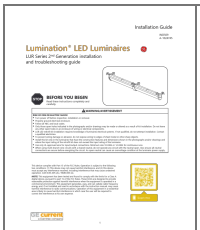
Documents / Resources

	GE current LUR Series Lumination LED Luminaires [pdf] Installation Guide LUR Series, Lumination LED Luminaires, LED Luminaires, Lumination Luminaires, Luminaires

References

- Commercial Lighting and Lighting Controls | Current - GLI Brands